

## Product Information

# ROHACELL® IG-F

ROHACELL® IG-F structural foam is a closed-cell rigid foam based on polymethacrylimide (PMI) chemistry and contains no CFC's.

The "IG" in ROHACELL® IG-F stands for "Industrial grade." It is the standard product in our range of rigid foam products and is suitable for a wide variety of automotive, medical and industrial applications.

The "F" in ROHACELL® IG-F indicates the foam's fine cell structure that will take up only minimal resin at the surface where the cells have been cut open. Less resin take-up during part processing means less final part weight and overall cost.

## PROCESSING AND PRODUCTION

ROHACELL® IG-F is particularly suitable for prepreg processing, but can also be used in resin infusion and RTM processes up to temperatures of 130 °C (266 °F) and pressures of 0.3 MPa (44 psi).

## THERMOFORMING AND SHAPING

The thermoformability of ROHACELL® provides tremendous manufacturing advantages and ROHACELL® IG-F is easy to shape by machining.

High precision, pre-shaped and ready-to-use foam cores in complex or simple geometries can be supplied by the ROHACELL® Shapes Department.

Property	Test Method	Unit	ROHACELL® 31 IG-F	ROHACELL® 51 IG-F	ROHACELL® 71 IG-F	ROHACELL® 110 IG-F
Density	*	kg/m <sup>3</sup> lbs/ft <sup>3</sup>	32 ± 7 2.00 ± 0.44	52 ± 12 3.25 ± 0.75	75 ± 15 4.68 ± 0.94	110 ± 21 6.87 ± 1.31
Compressive Strength	ISO 844	MPa psi	0.4 58	0.9 130	1.5 217	3.0 435
Compressive Modulus	ISO 844	MPa psi	17 2,470	43 6,240	73 10,600	120 17,400
Tensile Strength	ISO 527-2	MPa psi	1.0 145	1.9 275	2.8 406	3.5 507
Tensile Modulus	ISO 527-2	MPa psi	36 5,220	70 10,150	92 13,340	160 23,200
Shear Strength	DIN 53294	MPa psi	0.4 58	0.8 116	1.3 188	2.4 348
Shear Modulus	DIN 53294	MPa psi	13 1,885	19 2,755	29 4,205	50 7,250
Coefficient of Thermal Expansion		1/K*10E-5	5.03	4.71	3.81	3.04

Technical data values presented are typical for nominal density, subject to normal manufacturing variations. All ROHACELL® products are closed-cell rigid foams based on polymethacrylimide (PMI) chemistry and contain no CFC's. \* Density values are valid for full-size sheets with a minimum thickness of 10 mm (0.39 inch) only. Other density ranges are available upon request.

**FOR MORE INFORMATION**

If you have questions or would like to discuss using **ROHACELL® IG-F** in your application, we encourage you to talk with your local **ROHACELL®** representative.

Visit [www.rohacell.com](http://www.rohacell.com) to locate and directly connect with the contact in your region, by phone or email.

**Disclaimer**

ROHACELL® is a registered trademark of Evonik Industries and its subsidiaries.

This information and all technical and other advice are based on Evonik's present knowledge and experience. However, Evonik assumes no liability for such information or advice, including the extent to which such information or advice may relate to third party intellectual property rights. Evonik reserves the right to make any changes to information or advice at any time, without prior or subsequent notice. EVONIK DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, AND SHALL HAVE NO LIABILITY FOR, MERCHANTABILITY OF THE PRODUCT OR ITS FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE), OR OTHERWISE. EVONIK SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. It is the customer's sole responsibility to arrange for inspection and testing of all products by qualified experts. Reference to trade names used by other companies is neither a recommendation, nor an endorsement of the corresponding product, and does not imply that similar products could not be used.

**Evonik Resource Efficiency GmbH**

High Performance Polymers  
Performance Foams  
64293 Darmstadt, Germany  
Phone +49 6151 18-1005

**Evonik Foams Inc.**

Theodore, Alabama USA  
Phone +1 866 764-6235

**Evonik Specialty Chemicals (Shanghai) Co., Ltd.**

Shanghai, China  
Phone +86 1391 6212034